

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-9 (Canceled).

Claim 10 (New): A device for providing computer-aided assistance with movements continuously during processing of a material, comprising:

a referent of the material to process defined according to an absolute reference system;

a work station equipped with target objects having a function of resetting a metrologic system after it has been displaced;

a tool scaling system;

at least one tool for machining the material;

an absolute reference system serving as a referent for a computer carrying out acquisition, storage, and processing of data issued by the metrologic system and continuously propagating an effect of displacements of the at least one tool, relative to the material to be machined and that is being processed, to one or more digital models, wherein the metrologic system has a function of continuously measuring a position of the at least one tool and of the material to be machined and that is being processed; and

a stimuli generator continuously informing an operator of the position of the at least one tool relative to the material to be machined and that is being processed, by increasing reality of actions/reactions that the operator's job involves, by a choice of multiple and simultaneous sensory returns.

Claim 11 (New): A device according to Claim 10, wherein the metrologic system comprises an articulated arm for measuring or a localization system holding the at least one tool, and is balanced by an adjustable lifting system.

Claim 12 (New): A device according to claim 10, wherein the position of the metrologic system is modulated and identified with aid of an entire set of target objects placed on the work station.

Claim 13 (New): A device according to claim 10, wherein, at any instant, measurable displacements of the material are taken into account to enable action of the at least one tool on the material, based on continuous balancing of the one or more digital models with the absolute reference system.

Claim 14 (New): A device according to claim 10, wherein the stimuli generator supplies sensory returns of multiple view type, at variable scales, of the one or more digital models in which the at least one tool is represented throughout all its displacements, displayed as a reaction reserve that can be programmed in relation to density/scale factor of the material being machined.

Claim 15 (New): A device according to claim 10, wherein the stimuli generator supplies sensory returns of sound type and/or a pull-back in force that have variable and increasing intensity in relation to a gradual approach of the at least one tool and its reserve in the one or more digital models with respect to a closest possible punctual contact.

Claim 16 (New): A device according to claim 10, wherein representation of the at least one tool in views is enhanced by a physical representation of an axis of support of the at least one tool and of a shortest path separating a tool model from a closest possible punctual contact in the one or more digital models.

Claim 17 (New): A device according to claim 10, wherein display of the one or more digital models of a shape to be attained has a locally improved resolution, and is preset by characteristics to an exact sequence of movements of the at least one tool in space.

Claim 18 (New): A device for providing computer-aided assistance with movements continuously during processing of a material, comprising:

- a referent of the material to process defined according to an absolute reference system;

- a work station equipped with target objects having a function of resetting a metrologic system that can be modulated and identified with aid of an entire set of target objects placed on the work station after it has been displaced;

- a tool scaling system;

- at least one tool for machining the material;

- an absolute reference system serving as a referent for a computer carrying out acquisition, storage, and processing of data issued by the metrologic system and continuously propagating an effect of displacements of the at least one tool relative to the material to be machined and that is being processed, to one or more digital models, wherein the metrologic system has a function of continuously measuring a position of the at least one tool and of the material to be machined and that is being processed;

a stimuli generator continuously informing an operator of the position of the at least one tool relative to the material to be machined and that is being processed, by increasing reality of actions/reactions that the operator's job involves, by a choice of multiple and simultaneous sensory returns, the stimuli generator supplying sensory returns of multiple view type, at variable scales, of the one or more digital models in which the at least one tool is represented throughout all its displacements, displayed as a reaction reserve that can be programmed in relation to density/scale factor of the material being machined, or the stimuli generator supplying sensory returns of sound type and/or a pull-back in force that have variable and increasing intensity in relation to a gradual approach of the at least one tool and its reserve in the one or more digital models with respect to a closest possible punctual contact.

Claim 19 (New): A device according to claim 18, wherein the metrologic system comprises an articulated arm for measuring or a localization system holding the at least one tool, and is balanced by an adjustable lifting system.

Claim 20 (New): A device according to claim 18, wherein, at any instant, measurable displacements of the material are taken into account to enable action of the at least one tool on the material, based on continuous balancing of the one or more digital models with the absolute reference system.

Claim 21 (New): A device according to claim 18, wherein representation of the at least one tool in views is enhanced by a physical representation of an axis of support of the at least one tool and of a shortest path separating a tool model from a closest possible punctual contact in the one or more digital models.

Claim 22 (New): An iterative action/information method for providing continuous computer-aided assistance and learning with regard to manual movements during processing of a material, comprising:

defining at least one reference system with a view to scaling a work station;

defining at least one digital model of a shape to be attained of a material to process, in relation to a referent known at any instant in relation to an absolute reference system;

establishing a placement of the at least one digital model of a shape to be attained in the at least one digital model of the material to process;

defining a digital model of the tool specified by the physical and geometric parameters designed to machine the material by scaling it according to a reference system known at any instant in relation to the absolute reference system;

obtaining necessary data for knowing a position of the at least one tool in relation to the at least one digital model of the shape to be attained;

obtaining a quasi-simultaneous updating of the at least one digital model of a machined material with respect to effect of the at least one tool on the material, which is induced by manual movements of an operator; and

obtaining a quasi-simultaneous analysis of the work results furnished by the at least one digital model of the machined material and of the movements.